



Johnson Space Center



NASA's Johnson Space Center has served as a hub of human spaceflight activity for more than half a century. As the nucleus of the nation's astronaut corps and home to International Space Station mission operations and a host of future space developments, the center plays a pivotal role in surpassing the physical boundaries of Earth and enhancing technological and scientific knowledge to benefit all of humankind.

Established in 1961 on nearly 1,700 acres southeast of downtown Houston as the Manned Spacecraft Center, the bustling core of space activity was renamed in 1973 to honor the late president and Texas native, Lyndon B. Johnson. From the Mercury, Gemini, Apollo and Space Shuttle Programs to the International Space Station and Orion, Johnson's nearly 14,000 person workforce helps bolster NASA's standing as an institution where creative and talented problem solvers push the boundaries of explorations innovation.

Leading Human Exploration

Every one of the more than 500 NASA astronauts and space explorers from our international partners who has crossed the threshold of the International Space Station or flown on the space shuttle has trained at Johnson. In the Space Vehicle Mockup Facility, astronauts, engineers and other mission support professionals learn skills and procedures to operate the orbiting laboratory on full-scale modules. In facilities around the 200-plus building center, a precision air-bearing floor, a partial gravity simulator and a virtual reality simulator, among other training facilities, prepare astronauts to live and work in microgravity. At Johnson's satellite

facilities close to the center, they maintain their flying skills in T-38 jets and practice spacewalks at the Neutral Buoyancy Lab.

NASA missions that explore new frontiers and expand understanding of how humans live and work in space are planned and supported from the Christopher C. Kraft, Jr. Mission Control Center. A host of engineers, scientists and mathematicians help the men and women living in low Earth orbit utilize the space station to its fullest capabilities, test new technologies, and sustain the life of the orbiting laboratory through 2020. Some of the agency's experts in human spaceflight work with private companies to develop safe, reliable and affordable commercial vehicles to transport humans and cargo to low Earth orbit.



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and demonstrating prototype systems for life support, habitation and spacewalks. The advancement will improve the quality of future missions while reducing the risks and costs that come with spaceflight.

Advancing Scientific Knowledge

Teams of scientists are constantly at work advancing insight into human adaptability to microgravity and developing understandings of how to mitigate the challenges to health and performance associated with the harsh environment of space. Scientific inquiries on the space station have helped researchers understand microbial vaccine development, plant growth and fluid flow, for example. As part of the Human Research Program, researchers evaluate the highest risks to astronaut health and conduct fundamental and applied research on the human system. The research expands knowledge, technologies and tools to enable safe, reliable and productive human space exploration. In the Space Food Systems Laboratory biochemists develop the food astronauts eat during missions to optimize the nutritional elements needed to keep their bodies healthy and their minds sharp and develop space-friendly packaging and food preparation hardware.

Since the return of the first lunar samples, the Astromaterials Research and Exploration Science Directorate has had curatorial responsibility for all NASA-held extraterrestrial materials. It is also a world leader in the study of orbital debris, administers the study of the thousands of photographs that have been taken by astronauts, and works with Mars exploration initiatives. These studies are helping NASA assess whether Mars is or ever was habitable for life and will help determine how astronauts will one day explore the red planet.

Developing Deep Space Technologies

Inside the center's facilities, engineers are building upon decades of spaceflight research and knowledge to develop the most advanced deep space crew vehicle ever conceived. The Orion vehicle will include crew and service modules for extended space travel beyond Earth, a spacecraft adaptor and a revolutionary launch abort system that will significantly increase crew safety.

Across the campus, a suite of Advanced Exploration System projects, such as a humanoid robot and a new Space Exploration Vehicle, are redefining how NASA does business by developing

Mission Support, Strategic Opportunities and Partnerships

A slate of mission support organizations help NASA maintain its position as a model agency, from human resources, information technology and external relations support, to procurement, finance and center operations. Through the center's Strategic Opportunities and Partnership Development Office, Johnson also leverages critical skills to evolve the agency's mission, provides strategic planning for future business opportunities and partnerships, manages partnerships with external entities, establishes new partnerships across aerospace industries and government.

National Aeronautics and Space Administration

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